

R E M A R K S

Reconsideration of this application, as amended, is respectfully requested.

THE DRAWINGS

Figure 1 has been amended to correct a minor clerical error of which the undersigned has become aware. Submitted herewith are a corrected sheet of formal drawing which incorporates the amendment to Fig. 1 and an annotated sheet showing the change made thereto. No new matter has been added, and it is respectfully requested that the amendment to Fig. 1 be approved and entered.

THE CLAIMS

Claim 1 has been amended to recite that the simulation apparatus is for a mobile communication system which is incorporated in a mobile communication system simulator serving as a pseudo base station for testing a mobile communication terminal to be evaluated, and which conducts tests for protocol messages in mobile communication with the mobile communication terminal to be evaluated by transmitting test signals to the communication terminal to be evaluated, through a transfer hierarchy section, and receiving response signals from the mobile communication terminal to be evaluated, through the transfer

hierarchy section. Further, claim 1 has been amended to recite a scenario executing section which includes (i) an executable format scenario storage section which stores an executable format scenario in which a sequence for executing transmission in a desired protocol message to the mobile communication terminal to be evaluated and reception in the desired protocol message from the mobile communication terminal to be evaluated is described, and (ii) an execution control section which outputs at least a receive protocol message received from the mobile communication terminal to be evaluated, through the transfer hierarchy section, to the interface library by executing the executable format scenario in accordance with the sequence described in the executable format scenario stored in the executable format scenario storage section. Claim 1 has also amended to recite a trace data managing section which manages the sequence of the desired protocol message executed at the scenario executing section and a first display control section which controls a display section to display the sequence of the desired protocol message managed at the trace data managing section. And claim 1 has also been amended to recite that the decode processing section processes to decode the protocol messages input via the interface library, prepares a message tree showing a relationship of a hierarchy of each node of the protocol messages based on the definition regulated in the definition file, outputs the message

tree to the memory managing section, and detects data of an arbitrary node denoted by a path which has been designated from among the data relating to the nodes of the protocol messages managed at the memory managing section based on a path denoting a node at which there is desired data, which is designated via the interface library.

Claims 2-4 have been cancelled.

Claims 5-13 have been amended to better accord with amended claim 1, and/or to change their dependency in view of the cancellation of claims 3 and 4.

Claim 14 has been amended to recite that the simulation method is for a mobile communication system which is incorporated in a mobile communication system simulator serving as a pseudo base station for testing a mobile communication terminal to be evaluated, and which conducts tests for protocol messages in mobile communication with the mobile communication terminal to be evaluated by transmitting test signals to the communication terminal to be evaluated, through a transfer hierarchy section, and receiving response signals from the mobile communication terminal to be evaluated, through the transfer hierarchy section. Further, claim 14 has been amended to recite that decoding the protocol messages uses a decode processing section. Claim 14 has also been amended to recite that the generating a desired protocol message by combining the data relating to the nodes of

the protocol messages managed at the memory managing section uses an encode processing section. Further, claim 14 has been amended to recite storing in an executable format scenario section an executable formal scenario in which a sequence for executing a transmission in a desired protocol message to the mobile communication terminal to be evaluated and reception in the desired protocol message from the mobile communication terminal to be evaluated is described, and enabling at least a receive protocol message received from the mobile communication terminal to be evaluated through the transfer hierarchy section, to be output to the interface library by executing the executable format scenario in accordance with the sequence described in the executable format scenario stored in the executable format scenario storage section. Claim 14 has also amended to recite providing a trace data managing section which manages the sequence of the desired protocol message executed when the executable formal scenario is executed by the scenario executing section and controlling a display section using a first display control section to display the sequence of the desired protocol message managed at the trace data managing section. And claim 14 has also been amended to recite that the decoding of the protocol messages using the decode processing section includes decoding the protocol messages input via the interface library, providing a message tree showing a relationship of a hierarchy of each node

of the protocol messages based on the definition regulated in the definition file, and outputting the message tree to the memory managing section, and detecting data of an arbitrary node denoted by a path designated from among the data relating to the nodes of the protocol messages managed at the memory managing section based on a path denoting a node at which there is desired data, which is designated via the interface library.

Claims 15-17 have been cancelled.

And claims 18-25 have been amended to better accord with amended claim 14, and/or to change their dependency in view of the cancellation of claims 16 and 17.

No new matter has been added, and it is respectfully requested that the amendments to the claims be approved and entered.

THE PRIOR ART REJECTION

The present invention as recited in amended independent claims 1 and 14 is directed to a simulation apparatus and method for a mobile communication system. In the simulation apparatus and method in accordance with the present claimed invention, an execution control section 9b of a scenario executing section 9 performs a control so as to conduct a test by actively communicating with a communication terminal 14 to be evaluated based on the sequence of the executable format scenario stored in

the executable format scenario storage section 9a (see Fig. 1). More specifically, the scenario executing section 9 includes an executable format scenario storage section 9a which stores the executable format scenario in which a sequence for executing a transmission in the desired protocol message to the communication terminal 14 to be evaluated and reception in the desired protocol message from the communication terminal 14 to be evaluated, through the transfer hierarchy section 12, has been described. The scenario executing section 9 may also include an execution control section 9b which can output at least a receive protocol message received from the mobile communication terminal 14 to be evaluated through the transfer hierarchy section 12, to the interface library 5, by executing the executable format scenario in accordance with the sequence described in the executable format scenario stored in the executable format scenario storage section 9a. The simulation method in accordance with the invention recites similar functions as those of the scenario executing section set forth in claim 1.

The simulation apparatus also includes a decode processing section which decodes the protocol messages input via the interface library 5, provides a message tree showing a relationship of a hierarchy of each node of the protocol messages based on the definition regulated in the definition file, outputs the message tree to the memory managing section 3, and detects

data of an arbitrary node denoted by a path which has been designated from among the data relating to the nodes of the protocol messages managed at the memory managing section 3 based on a path denoting a node at which there is desired data, which is designated via the interface library. The simulation method in accordance with the invention recites similar functions as those of the decode processing section.

The simulation apparatus also includes a trace data managing section 10 which manages the sequence of the desired protocol message executed at the scenario executing section 9. And the simulation method in accordance with the invention recites similar functions as that of the trace data managing section.

The simulation apparatus also includes a first display control section 11 which controls the display section 13 to display the sequence of the desired protocol message managed at the trace data managing section 10. And the simulation method in accordance with the invention recites similar functions as those of the first display control section.

With the above described structure, the simulation apparatus and method in accordance with the claimed present invention operates with a unique definition file, which is not a file of only a protocol specification which constitutes a scenario. Rather, the definition file is managed by the interface library 5, the decode processing section 4, the memory managing

section 3 and the encode processing section 2 to have an interactive relationship with the protocol specification and protocol messages based on a scenario according to the definition file 1 in which a test procedure and test items are described. The relationship between the specification protocol and protocol messages applied is dynamically managed when conducting a test in the simulation apparatus and method in accordance with the invention.

It is respectfully submitted that Narad et al does not disclose, teach or suggest a simulation apparatus and method for a mobile communication system including all of the features set forth in independent claims 1 and 14.

Narad et al discloses a general-purpose programmable packet processing platform for accelerating network infrastructure application which has been structured so as to separate the stages of classification and action. The platform is implemented in an apparatus generally including network infrastructure application 2, wire speed policy 3, an application processor and OS 4 and policy engine 6 and which simply processes a received signal (see Fig. 1).

In contrast to the present claimed invention, Narad does not disclose, for example, a scenario executing section including an executable formal scenario storage section, a trace data managing section, a first display control section and/or a decode

processing section which perform the function(s) set forth in claims 1 and 14. Paragraphs 0412 -0432 and 0434-0460 referred to by the Examiner in the rejection of claim 4 (whose subject matter is now incorporated into claim 1 and similar subject matter also being incorporated into claim 14), does not mention these particular sections or the functions performed thereby.

Since Narad et al does not disclose a simulation apparatus and method for a mobile communication system having the same features as the claimed invention, it is respectfully submitted that Narad et al does not anticipate or render obvious the embodiments of the present invention recited in amended independent claims 1 and 14.

Accordingly, it is respectfully submitted that the present invention as recited in independent claims 1 and 14, and claims 5-13 and 18-26 depending therefrom, clearly patentably distinguish over all of the cited prior art references, under 35 USC 102 and 35 USC 103.

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In view of the foregoing, entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

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Response to Office Action

Customer No. 01933

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,

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